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May 16, 1996



William F. Caton
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

In re Matter of Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, **CC Dkt. No. 95-185.**

Dear Mr. Caton:

Enclosed for filing in this docket are the original and one copy of a letter from Richard A. Epstein to William E. Kennard, along with a paper prepared by Professor Epstein entitled: The FCC Bill and Keep Proposal: A Takings Analysis. Copies of the letter and paper are being delivered to members of the Commission and the staff. I would ask that you include both the letter and paper in the record of this proceeding.

If you have any questions concerning this matter, please contact me at (202) 326-7902.

Thank you for your consideration.

Yours sincerely,

Michael K. Kellogg

cc: Mr. Kennard

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May 15, 1996

Mr. William E. Kennard
General Counsel
Federal Communications Commission
Washington D.C.

In Re Matter of Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, C. C. Docket No. 95-185.

Dear Mr. Kennard:

I am writing this letter to you in my capacity as consultant for the Bell Atlantic Companies and SBC Communications Inc.. I have enclosed a copy of a white paper that I have prepared which outlines the takings challenges that I believe undermine the soundness of the Commission's tentative bill and keep proposal governing interconnections between Commercial Mobil Radio Service (CMRS) providers and Local Exchange Carriers (LECs). Over the years, I have done extensive work in both law and economics and in the constitutional law of eminent domain, both generally, and as it applies to rate regulation.

As you know, the Commission has "tentatively conclude[d] that, at least for an interim period, interconnection rates for local switching facilities and connections to end users should be priced on a 'bill and keep' basis." (NPRM, at P. 4). The enclosed white paper analyzes the bill and keep proposal along two separate frontiers. The first asks about the consistency of the proposal with the constitutional mandate of the takings clause. The second addresses the relationship between the bill and keep proposal and the existing case authority. Let me briefly summarize each part.

In dealing with the constitutional issues raised by the proposal, it is best to begin with a single phone call that can be completed only with the cooperation of two companies. It can be taken as given that the interconnections will be established either by private agreement or under FCC order, so that the only question is the distribution of the costs associated with the transmission of the call. The bill and keep proposal states in effect that the party which originates the call gets to keep all the revenue from it, even though the resources of the receiving carrier are used to complete the transaction. Looked at in isolation, this view of the matter surely requires

one carrier to part with valuable property and labor for no compensation. If this is all there were to the matter, then the nature of the constitutional violation under the takings clause would, in my judgment be too plain to consider further. The case would be no different from one in which a regulator allowed A to use the automobile of B for A's purposes, without payment of just compensation.

The distinctive features of the communications network, however, suggests that three possible justifications might be advanced to negate the apparent violation of the takings clause. One argument is that government coercion is necessary to overcome the holdout problems that arise whenever separate carriers are forced to operate a seamless network. But while this argument may well justify FCC coercion to establish interconnections between networks, it in no way precludes the originating carrier from paying for the use of the capital equipment of the another carrier. The holdout problem can be overcome with payment of just compensation just as it can be overcome without such compensation.

A second argument recognizes that compensation is required and insists that this compensation is provided in the ability of the receiving carrier to take advantage of a bill and keep regime in other transactions between the parties. In essence, the compensation is afforded in-kind, in the right to extract gains from the same parties who have extracted these gains from you. This argument, however, only shows that some compensation has been provided. It does not show that just compensation has been provided. In order for that condition to be satisfied, it has to be shown that the payments a carrier gets to keep when it originates the calls are equal to the losses it suffers when it terminates a call. Yet the mere fact that 85 percent of the calls (and an equal percentage of minutes) start with the CMRS provider show that this condition is not satisfied. The partial compensation provided by the reciprocal payment system reduces, but does not eliminate, the scope of the constitutional violation.

The last argument in favor of bill and keep is that it minimizes the costs of running the system by removing from all carriers the administrative costs of settling accounts between them. But the savings in administrative costs is small at best, and in any event is completely overshadowed by the unfortunate incentive effects that are created in every case when one carrier is allowed to ignore the costs that its actions in sending calls impose on the carrier obligated to receive them. The systematic distortion of incentives eliminates any conceivable cost-saving justification for the deviation from the just compensation principle that the proposed bill and keep regime would introduce.

The case law fully supports the above argument. On this question two lines of authority are relevant. The first are those cases that deal with the

regulation of public utilities and require that the rate structure imposed by any given rate order allow the carrier to recover a reasonable rate of return on its original investment. Here it is critical to stress that the key Supreme Court pronouncement in Hope Natural Gas v. FPC, 320 U.S. 591 (1944) required that the just compensation be provided in connection with each individual rate order. That rate order requirement means that it is not possible for any regulator to circumvent the just compensation obligation with an unenforceable assurance that whatever is lost in this proceeding will be made up at some other time. The inability to balance the accounts over time within the FCC, or to balance the accounts between the FCC and the state agencies points out the critical importance of the judicial requirement that each rate order be a self-contained unit, brought to closure at a single time. The bill and keep proceeding has to stand on its own, and the losses that are imposed on the LECs cannot be wished away on the assumption that some future ratemaking procedure will authorize compensatory rates.

The basic framework under the rate of return cases, moreover, is not displaced by the "reasonable expectations" test that has been developed by the Court in Penn Central Transportation v. New York, 438 U. S. 104 (1978). That case dealt with land use regulation, where the scope of state discretion is always greater given the danger of conflicts over land use between neighbors. But the moment the matter becomes one of rate regulation, the clear and justified expectation is that all rate proceedings will provide a reasonable rate of return on invested capital, just as the decision in Hope provides.

As a matter of both theory and case law, therefore, the proposed bill and keep order has to stand on its own when faced with a challenge under the takings clause. Owing to the imbalance in call origination, a bill and keep system works a major redistribution in wealth away from the LECs to the CMRS providers in a manner that is inconsistent with the takings clause of the Constitution.

Sincerely yours,

Richard A. Epstein

encl.

# THE FCC BILL AND KEEP PROPOSAL: A TAKINGS ANALYSIS

by

Richard A. Epstein*

BACKGROUND The subject matter of this background paper is an analysis of the constitutional ramifications of the proposed "bill and keep order" that will determine how compensation is set for interconnections between Commercial Mobile Radio Service Providers (CMRS providers) and Local Exchange Carriers (LECs). The topic has been the subject of an extensive administrative proceeding before the FCC in which the Commission has "tentatively conclude[d] that, at least for an interim period, interconnection rates for local switching facilities and connections to end users should be priced on a 'bill and keep' basis." (NPRM, at P. 4) If adopted, that proposal would allow the carrier that initiates a call to keep all of the revenues generated by it.

By way of background, under current conditions the volume of traffic is not evenly balanced between calls that originate from the CMRS provider in wireless mode, and those which proceed from the land and wire based LEC. Today about 85 percent of the calls originate via CMRS, with only about 15 percent originating on the LEC. The Commission's proposal therefore results in assigning 85 percent of the revenues from these interconnections to the CMRS provider, without, as it will be shown, any justification for this skewed allocation. In my view, any future order that adopts this proposal, whether on a temporary or permanent basis, would authorize a taking of LEC property

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* This paper has been prepared as a consultant for the Bell Atlantic Companies and SBC Communications, Inc.

without just compensation, in violation of the Fifth Amendment to the United States Constitution, which states "nor shall private property be taken, for public use, without just compensation."

In order to demonstrate how the bill and keep approach effectuates a taking, I shall begin with an analysis of a single stripped-down transaction subject to the bill and keep proposal. Thereafter I will show that the full range of complicating factors does not dislodge this conclusion, even if they may have some effect on the financial magnitude of the constitutional violation. More concretely, the bill and keep proposal fails notwithstanding the assumed need of FCC regulations to govern interconnection. It also fails even if all LEC/CMRS transactions are combined together in a single rate order. Finally, the bill and keep approach fails even when all relevant administrative costs and incentive effects are taken into account.

After that analytical examination of the question, I shall then examine the existing precedent, chiefly that urged on the FCC by the proponents of the bill and keep pricing regime. This analysis comes in two parts. First, I shall look at those cases that deal directly with rate regulation of public utilities, see, e.g., Federal Power Commission v. Hope Natural Gas, 320 U.S. 591, 602 (1944), and Duquesne Light Co. v. Barasch, 488 U.S. 299, 310 (1989), to show why they preclude the adoption of the NPRM's bill and keep approach. In undertaking this analysis I shall assume the relevance of these decisions, even though the telecommunications industry is in large part no longer subject to traditional forms of rate-of-return regulations to which the decisions in Hope and Duquesne Light both applied. The differences here are not unimportant because the LECs are subject, both in theory and in practice to a level of direct competition that was not present in the natural gas

industry at the time of Hope or in the traditional public utilities at the time of Duquesne. The rise of competitive forces in the home base of the LECs is a topic that requires extended analysis in its own right, but it is one that I leave here for another day. It is sufficient to note for this purposes that any new competition does not alleviate the takings problem. To the contrary it aggravates it. In a world without competition, internal cross-subsidies can offset any losses the LECs are forced to bear on particular services or products. But these pockets of plenty are soon emptied if new competitors can lure away from the LECs their high-margin products or services.

Within the context of traditional rate-of-return regulation, the basic proposition that governs the dispute over the proposed bill and keep order is that every rate order of the Commission must guarantee a public utility the opportunity to earn a fair and reasonable rate of return for all the separate components to which it applies. That requirement, which derives from the explicit language of Hope prevents the systematic danger of allowing a regulator to impose net losses on a regulated party today on the strength of its vague and indefinite promise to "make good" that loss tomorrow. The regulator is still free to make its rate orders as broad or as narrow as it pleases, and to provide on one bottom line the constitutionally required rate of return from any constellation of activities and services bundled together in a single rate hearing. But it must tie up all the loose ends of its chosen project at the same time.

The second half of the legal analysis disputes the contention that the investment-backed expectations test of Penn Central Transportation Co. v. New York, 438 U.S. 104 (1978), leads to a different result. Quite simply all LEC investments are made with the expectation of profit and under the

assumption that they will be rewarded with the constitutionally required rate of return. Penn Central does nothing therefore to displace the constitutional standards developed in Hope.

I. THE ANALYTICAL FRAMEWORK. The simplest interconnection between a CMRS provider and a LEC requires the cooperation of both firms. Each firm has to incur capital and operating costs to maintain its services, and, in the absence of external subsidies, these costs can only be recovered from charges collected for the use of the system. The bill and keep proposal for interconnection rates would stipulate that in every case, jointly provided services should be treated as though they were provided by only one company to the transaction—the party that originates the call keeps all the revenue collected from the customer who originated that call. Both companies sow, but in the particular transaction only one reaps.

To see the constitutional infirmities of the bill and keep approach, consider a stylized analysis of a single phone transaction. Suppose that for any given call, the revenue is $0.50 and the cost is $0.20 for each firm. Here the allocation of all the revenue to a single firm results in a profit of $.30 to the originating firm and a loss of $.20 to the terminating firm. The overall profit from the transaction equals $.10. This distribution of profit and loss for the individual transaction would not arise in a voluntary market that required the consent of both parties for the transaction to go forward.

As applied to this single transaction, the constitutional standard implies the terminating carrier is entitled (profit aside) to receive the $.20 necessary to cover its costs of completing the call. Yet the bill and keep rule allocates all the revenue to the originating carrier. When the transaction is

viewed in isolation, the forced surrender of capital and labor for no compensation is a paradigmatic violation of the property rights of the terminating carrier. Some of its property has been taken over and used for the benefit of another carrier, but no benefit has been given back in exchange. If an ordinary business firm had been forced to surrender its goods or supply its services to an unrelated party for zero compensation, surely the transaction would count as a taking. The government took the property from A and then gave it to B, such that A is the poorer and B is the richer when the dust settles. Bill and keep between unrelated parties is surely a taking for the benefit of the party who exercises the government-mandated right to bill for particular calls.

The next stage in the argument asks whether it is possible to identify some special feature of these network transactions that defeats the charge that a bill and keep regime works an uncompensated taking. It is possible to distill three separate arguments from the Commission's NPRM that might account for that result. (i) The stated need to prevent the LEC's extraction of monopoly rents. (ii) The possibility that the bill and keep order in fact supplies the LEC with sufficient compensation by combining separate transactions. And (iii) the social gain attributable to the reduction in administrative costs under a simple bill and keep rule. None of these considerations, alone or in combination, displace the logic of the initial stripped-down transaction.

*i. Overcoming the Interconnection Problem.* The value of a communications network lies in the unassailable necessity of offering seamless connections for any call that originates in one part of the system to any recipient who is located anywhere else on that network. Allowing any

single carrier, especially a LEC, to holdout on the provision of its service, may produce short-term gains for the holdout, but the long-term disruption of the line leads to the reduction in value across the board. Even though the Commission is concerned with the risk that "a LEC may extract monopoly rents for interconnection," (NPRM at page 7) it hardly follows that the only way to escape this extraction risk is to jump from the frying pan into the fire. Any risk of extraction is fully countered by the creation of a duty to enter into interconnection agreements with co-carriers on the network, much as the common law required common carriers to take the business of all its customers at a reasonable price, and not just at whatever price the market could bear. See Allnut v. Inglis, 12 East 525, 104 Eng. Rep. 206 (1810). But the common law duty was to supply service at a reasonable price, not service at a zero price, which is what bill and keep requires

The ideal aspiration is to have the interconnection on terms that approximate those of a competitive market, as the Commission itself recognizes. (NPRM at page 4). A competitive market allows both parties to a contract to recover costs and to earn a profit, which in turn requires that the terminating carrier receive at least $.20 for the call, an outcome which assigns to the initiating carrier all the $.10 financial surplus ($.50 -$.40). It may be both necessary and prudent to impose interconnection duties to overcome the holdout problem. But it hardly follows that the Commission should propose to order these interconnections on terms that work an explicit expropriation in every case to which they are applied. Any rate order that guaranteed the terminating carrier over $.20 would obviate that holdout problem, secure a profit for the originating carrier, and negate the manifest takings violation introduced by a bill and keep regime. (The only remaining question is to

calculate a fair rate of profit on the transaction for each carrier.) The constant presence of the holdout risk provides no reason for imposing a certain extraction risk on the terminating carrier. Setting the revenues for the terminating carrier over a minimum of $.20 obviates the discontinuous lurch from one extreme to the other.

*ii. Combining separate transactions.* Thus far, the analysis of bill and keep focused on a single transaction. Its basic result does not change under current industry conditions even by grouping together all interconnections between a CMRS provider and a LEC. To see why, assume that we no longer focus on each individual call, but look at a representative group of 100 identical phone calls, 85 of which originate with the CMRS provider and 15 with the LEC. Under the previous assumptions, the total revenues received from this operation equal $50, while each carrier bears a cost of $20, leaving a surplus of $10. Under the proposed bill and keep regime, the CMRS carrier receives $42.50 of the revenues, while the LEC receives $7.50, assuming the 85/15 percent split. Yet in order to avoid confiscation to either carrier, the total revenues must be divided such that each side receives a minimum of $20. Blending a set of representative transactions reduces the level of confiscation from 100 percent of the LEC's incurred costs to only 62.5 percent ($12.50 rather than $20.00), a figure that does not come close to eliminating the problem of confiscation. In contrast, if, as is now the law, the two parties had been required to negotiate reciprocal interconnector fees in good faith, then the resulting agreement, no matter what the parties' relative bargaining power, would guarantee that the carriers receive at least their respective costs, thereby obviating the confiscation issue.

The arguments made have for reasons of exposition assumed that the cost of termination of a single call on the wireless networks is roughly equal to the cost of terminating a single call on the wireline networks. That simplification may not correspond to the empirical realities. But even if that is the case, the cost of termination would have to be nearly six times greater on the wireless networks than on the wireline networks for the overall costs of termination to be balanced between the two systems. It is not likely that this condition holds today, or that it will hold in the future. Accordingly, on the empirical issues, the burden of proof should be squarely on the CMRS carriers to demonstrate such cost differentials before a bill and keep system is put into place. To date, no such proof has been advanced.

*iiii. Administrative costs and incentive effects.* The bill and keep proposal has been justified on the ground that its built-in administrative ease reduces the administrative costs (excluding those of running this and similar proceedings) to zero. But no matter what system of billing is used, some costs will have to be incurred. In this context, the transactional savings of bill and keep are relatively small. All phone calls must be routinely monitored and billed to customers, so some record keeping is required no matter what the outcome of this FCC rulemaking. The incremental billing costs between carriers are small, because they already stand in direct relationships with each other and can easily calculate, as they have done for many years, any transfer payment between them under the current legal regime. Indeed, if it should turn out that bill and keep provided a cheap and reliable system of settling accounts, then there is every reason for the parties to adopt it voluntarily, as its use will make them better off. There is, accordingly, no reason to mandate

a system that the parties would choose to adopt voluntarily when it advanced their own economic interests.

It follows therefore that the takings analysis should not be driven by what is a distinctly second order issue. To see the point, assume that for each $.50 phone call, each carrier incurred a 1 percent billing charge, which, divided, equally yields one-half cent per call per carrier. Since the total costs of running the system have moved up from $.40 to $.41 per call, the profit (on the assumption that prices do not otherwise shift) is reduced from $.10 to $09. Under the Commission's view, the introduction of that additional penny justifies a transformation in the division of the revenues whereby a party who was previously guaranteed $.20 per transaction is all of a sudden shut out, all for half a cent. It is passing strange that a cost increase of $.01 should result in a wealth shift of $.20 per transaction. The right rule in this case is to insist that each party now receive a minimum of $.205 per transaction to cover costs, with a resulting $.01 reduction in surplus.

To see why this conclusion is correct, suppose that the government passed a law stipulating that two trading companies had to square their accounts under a bill and keep regime. Assume further that one company purchased $85 in goods from the second, which purchased $15 in goods from the first. The introduction of a $1 service expense would be regarded as an inadequate justification for wrecking the traditional terms and conditions of exchange in that market, and the scheme would surely be struck down as a taking under the present law. So long as money is property, the entire device is nothing more than an order that one company pay $70 to another. The bill and keep system should not be afforded any higher level of respect in the context of a communications network, where the distinctive features of the

common carrier system have all been taken into account by the statutory duties of interconnection already in place.

Nor is it possible to justify the bill and keep proposal by saying that this small reduction in administrative costs translates into an improvement in overall efficiency. The question of efficiency requires the minimization of the sum of administrative costs and bad negative incentive effects, not just the first alone. Yet unfortunately, a bill and keep rule would have poor allocative and incentive effects, both in the short and the long term. As the statements of Professor Hausman and Dr. Crandall both demonstrate, the bill and keep rule creates large externalities that preclude low social cost solutions to network connection problems. "By relying on market-based incentives and prices, and by replicating them, where necessary, our policies have sought to ensure the availability to consumers of goods and services at the lowest possible cost." (NPRM at 4). Yet that principle has not been followed in the proposed implementation of this rule, since no competitive market would ever attach a zero price to a costly service. See Hausman Statement, at page 3: "The Commission's proposal does not take account of the economic costs, but the proposal instead creates an incentive for the new CMRS entrant to minimize its cost while taking advantage of the existing networks and not paying for usage." Crandall Statement at page 8: "There are three related adverse incentive effects of instituting a policy of bill-and-keep: (1) it encourages competitors to seek out customers with a large share of originating traffic and to avoid customers with a large share of terminating traffic; (2) it subsidizes one technology at the expense of other, potentially more efficient, technologies; and (3) it creates a disincentive to invest in switching capacity to terminate calls."

Once again a simple numerical example illustrates the dangers that must be kept at bay. Under the bill and keep proposal, an originating carrier has the incentive to initiate all calls whose cost to it is below $.50. Only when the costs reach that number will that carrier find it uneconomical to continue with business. The choice between taking and rejecting new business, however, does not take into account the costs that are born by the terminating carrier, to whom no compensation is owing. If those costs were taken into account, then the originating carrier (we must now drop the original simplifying assumption of uniformity) would cease to accept business that cost it more than $.30 per call to complete, given its obligation to compensate the terminating carrier $.20. The level of services demanded at these two prices is quite different. Assume, for the sake of argument, that a price reduction of 50 percent generates double the level of calls. On any reasonable set of empirical assumptions, the proposed bill and keep rule creates allocative distortions that far outweigh any administrative savings.

Suppose, for example, that the originating carrier will take on 100 calls under a rule that requires reimbursement for costs. Given the assumptions that are made above, the set of transactions yields a positive social gain, for its costs of $40 are fully covered, and the only dispute is directed to the division of the surplus. But the situation changes radically under bill and keep. Now 200 calls are generated. As these calls are more expensive to produce, the costs to the originating producer of the second hundred calls rise, say to the level of $40. The originating firm still makes a profit on the transaction because its total revenues of $100 exceed its own cost of $60 ($20 + $40). But the transaction as a whole generates a social loss because the decision of the originating firm does not take into account the expenditures of the

terminating carrier on the calls. If its costs parallel those of the originating company, then the costs in question double to $120, while the total revenue generated remains at $100. The net social loss is $20, but the originating firm has no incentive to take it into account because the true economic costs are shifted to another firm. The $20 social losses would in fact dwarf the $1 in social losses needed to implement a system of reciprocal compensation that would be sufficient to obviate the problem

The force of this point is not reduced by pointing to the differences between the marginal cost of a single phone call and the marginal costs of expanding the size of the system to take into account the increases in CMRS/LEC traffic. It may be that the marginal cost of many individual calls is low, but so long as the size of the system at some point must be expanded to handle the increased volume then the cost of that expansion must be amortized over the many additional phone calls it serves. The usual regulatory prescription of Ramsey pricing (see Crandall Statement, at pages 4-5) seeks to impose the greatest costs on those services that have the least elasticity of demand (and which cannot therefore shift to other technologies). For these purposes we do not have to decide what portion of these basic costs should be assigned to the receipt of CMRS calls. It is only necessary to point out that terminating calls, under <u>any</u> set of assumptions are far greater than 0, so much so that 0 should be regarded perhaps as the one cost estimation most <u>certain</u> to be wrong.

The bill and keep approach thus forces the LECs to make uneconomical expansions of capacity without even providing them the revenues to cover their long term incremental costs of running the system. A fortiori, it follows that the formula does not allow for any contribution to the undistributed and

common costs, which must be necessarily incurred in setting up the overall system. The bottom line of the analysis is therefore that the bill and keep NPRM does not provide the LECs with any, let alone a sufficient, rate of return to attract and keep capital for this set of its business activities.

II. THE EXISTING CASE LAW REQUIRES THE CONSTITUTIONAL INVALIDATION OF BILL AND KEEP. No matter how sound the analytical and economic case against the proposed bill and keep regime, the proponents of the current program have argued that it is consistent with the current constitutional framework that yields broad discretion to the Commission in the setting of rate orders. This issue has been argued in two ways. The first of their arguments rests on an incorrect view of the rate of return formula under Hope Natural Gas. The second argument rests on a similar misapprehension of the use of the investment-backed expectations theory of Penn Central.

A. The Bill and Keep Formula is Inconsistent with the Bottom Line Formula of Hope Natural Gas.

The watershed case on regulatory takings for public utilities is Federal Power Commission v. Hope Natural Gas, 320 U.S. 591, 602 (1944), which is known for its endorsement of the so-called bottom-up approach to rate of return regulation:

> It is not theory but impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important. (Emphasis added.)

In order to place this key passage in context it is important to outline briefly the underlying dispute. Under the 1938 Natural Gas Act, the Federal Power Commission was given the authority to set the rates for natural gas that was sold in interstate commerce, namely to five customers located in Ohio and Pennsylvania. Hope arose when the regulated utility challenged the rate proceeding on the ground that it did not give it a just and reasonable rate of return on its assets. The rate order in question involved rates for all the interstate output of Hope. In so doing, the Commission allowed Hope only to include its "legitimate actual costs" which it defined as the original costs (incurred prior to the passage of the statute) less depreciation until the period when the Act took effect. The use of the lower number reduced, as a first approximation, the rate base from around $66 million to a figure just in excess of half that number.

Hope challenged the rate order on the ground that original cost less depreciation did not provide the proper figure for a rate base calculation. Instead Hope claimed that the appropriate measure was the fair current value of the goods and services, under Smyth v. Ames, 169 U.S. 466 (1898), which required the ratemaker to set the rate base equal to the "fair value" of the property. As Justice Rehnquist noted in Duquesne Light, 488 U.S. 299, 308-310 (1989), there is no easy way to choose between these two alternative rate bases. The "fair value" limitation of Smyth is more difficult to apply, but has superior incentive effects: the regulated firm gets no credit for wasted expenditures. The cost basis (less depreciation) is easier to use but has less desirable incentive effects. Hope essentially allowed the ratemaker to choose methods. The implicit assumption behind the decision was that various ratemaking errors would in all likelihood cancel each other out, such that the

gains in simplification would more than compensate for any loss in precision.

I have already noted my reservations over the extent to which the framework of rate of return regulation that governs Hope is applicable to the current controversy of the bill and keep proposal. But assuming its applicability, I want to draw special attention to two underscored limitations in the quoted passage. The first point is that the rate of return requirement attaches not to all the activities of the regulated industry, but only to those matters that are the subject of the particular rate order. The second is that if, but only if, the bottom line rate is acceptable for the transaction as a whole, then, but only then, are the infirmities of the rate order unimportant.

The adoption of this particular approach has direct relevance to this case. The sole subject of the present proposed rate order is the interconnection between the CMRS providers and LECs. As in Hope, certain portions of the total invested capital of the LECs are subject to regulation not through the Commission, but through the state regulatory authorities who have full capacity to adopt their own rules (on such matters as depreciation) in making their calculation. See Louisiana Public Service Commission v. FCC, 476 U.S. 355 (1986).

This division of authority has direct implications for the case at hand. The bottom line requirement for these interconnect transactions demands that a LEC receive a just and reasonable rate of return for its investment in this aspect of its business. The mere fact that it gets a windfall on those CMRS-LEC interconnections that it initiates does not assure that its bottom line is secured, given that its total capital is wiped out with respect to the

transactions that are originated by the CMRS provider. Since the bottom line within the rate order does not reach any suitable rate of return, it is not important to unpack the process used to reach that bottom line. (Once the bottom line is secured, then the internal pattern of calculations is ignored.) The errors here by definition sum to an inadequate rate of return for the subject matter of this rate order. The utter failure of the rule to take into account the costs of terminating calls can be assigned as a defect that rises to constitutional proportions.

In dealing with this question, it is important to note that the just compensation required under the constitution must come from the charges levied in connection with the transactions that were comprehended inside the scope of the rate order. Just that condition was satisfied in Hope where the firm's full interstate output was subject to a single rate order. It was likewise satisfied in Duquesne Light where the rate of return for the firm on its invested capital remained at around 13 percent even when the disputed nuclear power plant was removed from the rate base after approval for its construction had been given. See 488 U.S. at 310-311. Yet in this rate order no adjustment has been made elsewhere in the rate structure to offset the unambiguous losses that the bill and keep rule generates. No simple declaration that all is well substitutes for the explicit rate order determination required under Hope.

The clear implication of both Hope and Duquesne Light is that the regulated party did not have to count on the vague promise that the losses brought on by the rate order would be compensated for somewhere else down the line. Here the protection that is afforded by requiring the internal integrity of each distinct rate order procedure cannot be understated. So long

as all the items in question are in play at the same time, the regulator knows that if the pants pinch in one place, then some slack must be cut in another. No matter what the source of give and take, all items can be reckoned at the same time, so that items of loss will not be left adrift without compensation. The errors will be random and cancel out. They will not be subject to systematic bias.

This balancing of the books in individual rate making proceedings is of great importance in this context. If other rates, for example, are set under a rate cap price system or are subject to competitive pressures, the losses under the bill and keep order will not be offset by an increase in rates elsewhere. Alternatively, the rate making authority may have either the obligation or the right to introduce various cross-subsidies over its customer base—an outcome that certainly is contemplated under the Federal Communications Act, with its provisions for subsidies to rural and disabled customers. Hope legitimates these cross-subsidies by allowing the Commission to recoup subsidized rates to one portion of the customer base by charging supracompetitive rates to another portion of that base. Any resource distortions under this procedure, and the social justifications for them, can both be taken into account by the Commission. The regulated firm, which did not authorize the subsidies, is not to be victimized by them. Its rate of return, as measured by the bottom line, is constant regardless of how the individual components of the rate base are arrayed.

Once, however, any individual rate hearing is allowed to terminate at a loss, then this sensible regulatory accommodation is at an end. In the first rate order, the Commission could order the regulated firm to operate at an inadequate rate of return, or even at an actual loss. But there would be no

grounds on which to challenge that order because the Commission could always claim that compensation is forthcoming in the future, in some other rate hearing. But there is no obligation to say what rate hearing and to what extent. The ostensible compensation is left hidden in the clouds, dependent on proceedings that may never take place, or which will be preoccupied by other more pressing issues that make it easy to overlook the need to tie up loose ends from earlier transactions. It is therefore all too tempting to announce in the second case, that the subsidy will be carried over to the third, and then perhaps to the fourth. As is all too often the case with Congressional budget balancing, the deficits to the firm are in the "in" years, and the compensating gains to the regulated firm are in the "out" years—"out" years that never quite come in from the cold.

These dangers are present in this individual case. This proposed rate order is by its own terms "interim." One reason is that no one is quite sure what the structure of the communications industry will be in five years, once the various communications companies start to invade each other's territories. It is quite possible that this rate order, and tens of similar rate orders, will be all rendered obsolete by the rapid changes in technology and industry structure that promise to be the only constant features of the future environment. Even if the Commission wanted to provide some compensation in the "out" years, there is no reason to believe that it could. For even if it were prepared to authorize supracompetitive rates, there is no reason to believe that consumers would ever be prepared to pay them in the ever more competitive markets that will emerge. So unless the accounts balance today, they will just not balance at all.

The problem is of special importance under the divided administrative structure for telecommunications regulation. A huge portion of the LEC business is regulated by state commissions, which have their own programs of subsidies for residential users. Just as the Commission cannot leave loose ends under its rate order for its own future business, so it cannot assume that some possible adjustments in the rates at the state level will compensate for the losses in question. There is no evidence that any state has, or would, include the total allocated costs for these transactions in their state rate bases. Nor is there any way in which that could be done for those states that operate under a rate cap price procedure. Notwithstanding the wide variation in the way in which state and local governments calibrate their rates, there is no reason to believe that any of them have taken, or will take, into account the substantial losses that will arise if the Commission orders the implementation of the bill and keep system. The revenues that are awarded to the LECs are compensation for the services rendered pursuant to that program and that program only. It would be the worst form of double counting to treat the rates recovered from LEC customers for their local exchange services (many of which are subsidized) as compensation for the individual transactions that they receive from CMRS providers. Hope did not tolerate double counting when it approved the decision of the FPC to exclude from the rate base items that had already been expensed by the regulated firm. "No greater injustice to consumers could be done than to allow items as operating expenses and at a later date include them in the rate base, thereby placing multiple charges upon the consumers." Hope, 320 U.S. 591, 599 (1944). By the same token, no greater injustice could done to the regulated firm than to leave it with costs that have to be taken into account—but always somewhere else.

Courts at every level have consistently conducted the "total effect" inquiry set out in Hope Natural Gas by analyzing whether the rate order itself yields a just and reasonable rate of return. See, e.g., Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989); In re Permian Basin Area Rate Cases, 390 U.S. 747, 791-792 (1968); Colorado Interstate Gas Co. v. FPC, 324 U.S. 581, 603-604 (1945); Algonquin Gas Transmission Co. v. FERC, 948 F.2d 1305, 1315 (D.C. Cir. 1991); Trunkline LNG Co. v. FERC, 686 F.2d 430, 435 (6th Cir. 1982); Consolidated Gas Supply Corp. v. FERC, 653 F.2d 129, 133 (4th Cir. 1981); Giles Lowery Stockyards, Inc. v. Department of Agriculture, 565 F.2d 321, 324-325 (5th Cir. 1977), cert. denied, 436 U.S. 957 (1978).

There are a number of cases that, following Hope, have struck down specific rate orders of the Commission. One case that illustrates the basic pattern is AT & T v. FCC, 836 F.2d 1386 (D.C. Cir. 1988), which in the terms of the Per Curiam opinion "requires the carriers to refund earnings they receive in excess of the expected rate of return on capital factored into their rates." The Court had no difficulty at all in striking down the rate order.

> The refund rule requires the carrier to refund any earnings above the upper bound of target plus buffer, while the carrier may not recoup any shortfall in its earnings below the target. A carrier cannot be expected to receive earnings each year at precisely the prescribed rate of return, and from one two-year period to the next it must forfeit any excess in earnings while absorbing any deficiency. Thus, over the long run the carrier is virtually guaranteed to fall short of earning its required target rate of return on its combined operations for all such periods viewed together. The Commission itself acknowledged that the

refund rule introduces a "systematic bias" that operates to depress carrier earnings below their target "over the long run." Id. at 1390.

The FCC order was struck down on the ground that it could not meet the bottom line test of Hope, which was explicitly invoked for the proposition that the order could not stand because it necessarily pushed the rate of return below that allowable. Id. at 1391-1392. The FCC refund order set the average permissible rate of return equal to the top. Once that limitation was in place, the rate order made AT & T take the risk of all the bad years while its customers received the benefits of all the good years. Without the benefits from the good years, it became apparent that over the long run the average rate of return was below that necessary "to enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risk assumed," Hope 320 U.S. at 605, a standard that has been acknowledged and applied countless other times. See, e.g., United States v. FCC, 707 F.2d 610, 612 (D.C. Cir. 1983). AT & T held that it was not permissible to require an accurate accounting for the lean years while being subject to artificial restrictions on the permissible level of returns in the comparatively fat years.

The analogy to this case is immediate. Lean years are to CMRS originated transactions, as fat years are to LEC originated transactions. There are too many lean transactions and not enough fat ones for this proposed order to stand. Since it is known that the CMRS originated transactions are more frequent than the LEC originated transactions, the system here is also rigged so that the winning transactions will not balance out the losing transactions. As is the case with AT&T, no reviewing court has to conduct a detailed valuation of the various components that went into setting the rates.